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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,914	10/14/2003	Robert Torres	PD-202132	3558

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Hughes Electronics Corporation
Patent Docket Administration
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P.O. Box 956
El Segundo, CA 90245-0956

EXAMINER

LEE, CHI HO A

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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05/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/684,914

Applicant(s)

TORRES ET AL.

Examiner

Andrew Lee

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

ANDREW C. LEE
PRIMARY PATENT F

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/22/05; 2/24/05.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because Attorney Docket information should be deleted. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-9, 14, 19, 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 20 recite the limitation "the assigned satellite address" in line 8. There is insufficient antecedent basis for this limitation in the claim. In line 5, "an address" should be –an assigned satellite address–.

These claims are hybrid claims. These claims should be written in independent format.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2616

5. Claims 1-6, 9, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torssen et al 2003/0156540.

Re Claims 1, 9, 20, Torssen teaches in Fig. 9, an IP peer receiving a request (901 903_ for establishing a multicast session wherein the Join request is associated with a network address conforming to an IP layer (a first communication protocol); step 907 assigns link layer (a second communication protocol) multicast addresses (an address) to the plurality of wireless devices (a group of terminals) [See 0080] wherein the fig. 11, 1103 teaches a table mapping the network address; step 905, determines the allowable transmission rate and layers (the assigned address) that each wireless terminal can receive to establish a multicast session and step 907 signals the terminals (configuration message). Torssen fails to explicitly teach that the wireless network is a satellite network. Examiner takes notice that multicast service is known in satellite system, hence one skilled in the art would have motivated to incorporate the rate allocation and control for multicast service in Trossen into a known satellite system to support QoS application.

Re Claim 2, Torssen teaches supporting multicast service, Torssen fails to explicitly teach generating and updating a multicast distribution tree. However, it is known that multicast routing protocols utilize multicast distribution trees to identify multicast group members and paths from the source node to each group member whereby the multicast distribution trees are updated in response to changes in network topology and changes in multicast group membership. One skilled in the art would have been motivated to used a known multicast routing protocol.

Re Claim 3, refer to Claim 1, wherein IP is higher layer than link.

Re Claim 4, refer to Claim 1, wherein the multicast session is on demand and predetermined schedule.

Re Claim 5, refer to Claim 1, the system of fig. 9 is supported by a network service provider.

Re Claim 6, refer to Claim 1, wherein the signal includes the allocated rate and layer control information.

6. Claims 7-8, 10-19, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torssen et al 2003/0156540 in view of Sharon et al U.S. Patent Number 6,836,658.

Re Claims 7-8, 14, 15, Torssen fails to explicitly teach selecting one of a plurality of distribution schemes whereby the schemes specifies use of one or more spot beams. However, Sharon et al teaches in fig. 5, a multicasting spot beam communication satellite system wherein each beam is associated with a multicast member. Hence, once the multicast session is active, the satellite selects a number of spot beams to support the multicast service.

Re Claims 10, 13, once the multicast session is active, data flow is detected to monitor for congestion. If bandwidth is available (Torssen et al), the rate allocation and layer information (specified address) signal is acknowledge by the terminal, wherein the satellite of (Sharon et al) allocates a number of multicast spot beam (a multicast distribution plan) to support the multicast session.

Re Claims 11, 12, wherein the assigned address is a lower layer protocol that the multicast network address.

Re Claims 16, 17, 19, 21, refer to Claim 15, wherein fig. 5 teaches a high data rate satellite supporting multicast be selectively assigning beam spots associated with multicast member, whereby by combining Torrsen, the satellite of Sharon et al supports rate allocation. The satellite is inherently associated with a finite number of downlink beams or rate capacity (a threshold value) (the threshold value based on system resources and cost).

Re Claim 18, the satellite can be VSAT.

Allowable Subject Matter

7. Claim 22 is allowed.

The following is an examiner's statement of reasons for allowance:

Re Claim 22, prior art fails to teach the switching to distribution mechanism based on capacity of the satellite network and reachability of the participating satellite terminals wherein the mechanism is associated with the beam spots covering the multicast members.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Lee whose telephone number is 571-272-3130. The examiner can normally be reached on Monday to Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ANDREW C. LEE
PRIMARY PATENT EXAMINER

